

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 - 22. (cancelled)

23. (previously presented) A micromachined device comprising:
a substrate having an upper surface; and
an array of three-dimensional, thin film wells patterned at the upper surface of the substrate wherein each of the wells is capable of receiving and retaining a known quantity of liquid;

wherein each of the wells includes a side wall having an outside corner with a small radius to prevent the liquid from flowing down outside the side wall.

24-27. (cancelled)

28. (withdrawn) A method of using the device as claimed in claim 1, the method comprising:
dispensing a membrane solution droplet into the well.

29. (withdrawn) The method as claimed in claim 28 wherein the membrane solution is a polymeric membrane solution.

30. (withdrawn) The method as claimed in claim 28 wherein the membrane solution is an aqueous solution.

31. (withdrawn) The method as claimed in claim 28 wherein the membrane solution is a solvent-based solution.

32. (withdrawn) The method as claimed in claim 28 wherein the membrane is an optical membrane.

33. (withdrawn) A method of using the device as claimed in claim 2, the method comprising:

dispensing a first membrane solution droplet into the first well; and
dispensing a second membrane solution droplet over the first membrane solution droplet and into the second well.

34. (withdrawn) The method as claimed in claim 33 wherein the first membrane solution is an internal filling solution.

35. (withdrawn) The method as claimed in claim 33 wherein the second membrane solution is an external binding layer.

36. (withdrawn) The method as claimed in claim 33 wherein the second membrane solution has enzymes, antibodies or functional groups trapped therein.

37. (withdrawn) A method of using the device as claimed in claim 3, the method comprising:

dispensing a membrane solution droplet into each of the array of wells.

38-41. (canceled)

42. (currently amended) ~~The method as claimed in claim 24~~ A method of making a micromachined device comprising:
providing a substrate having a layer of radiation-sensitive material formed thereon;

patterning at least one three-dimensional, thin film well from the layer of material wherein the at least one well is capable of receiving and retaining a known quantity of liquid; and

dispensing a first membrane solution into the well wherein the membrane is an optical membrane.

43 (currently amended) ~~The method as claimed in claim 25~~ A method of making a micromachined device comprising:

providing a substrate having a layer of radiation-sensitive material formed thereon;

patterning at least one three-dimensional, thin film well from the layer of material wherein the at least one well is capable of receiving and retaining a known quantity of liquid;

dispensing a first membrane solution into the well;

patterning a three-dimensional, thin film well from the layer of material outside of the at least one well at the same time as patterning the at least one well, the method further comprising:

dispensing a second membrane solution over the first membrane solution and into the thin film well outside of the at least one well.

44. (previously presented) The method as claimed in claim 43 wherein the first membrane solution is an internal filling solution.

45. (previously presented) The method as claimed in 43 wherein the second membrane solution is an external binding layer.

46. (previously presented) The method as claimed in claim 43 wherein the second membrane solution has ionophores, enzymes, antibodies or functional groups trapped therein.